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Refereed Article

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Universal Dialogue Specification for Conversational Systems

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Abstract: *Spoken language dialogue systems which allow for spontaneous speech are not wide spread. There are a few systems in application domains such as train time-tables or flight reservations (see for an overview). One reason for the lack of good interactive dialogue systems is their complexity. Developing a system able to handle more than just simple commands and phrases requires a great deal of time and experience. To accelerate development and to make its complexity transparent to non-experts, appropriate methods and tools for dialogue modelling are necessary. Our goal is to provide tools for specifying models which can be used with different dialogue systems, i.e. different implementations of generic conversational systems*[1]*. The tools described in this paper use a single data representation, independent of a concrete dialogue system. They can generate dialogue specifications in several dialogue description languages such as VoiceXML. In order to guarantee the consistency of the generated output, sets of consistency rules can be formulated, one for each supported dialogue system.*

[1]By *generic* we mean that the dialogue system is implemented application independently and can be configured for various application domains. A conversational system is a dialogue system able to handle complex, mixed-initiative dialogues, as opposed to command-and-control systems

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